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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,247	06/20/2003	Xia Tang	02-641/EH-10787	6688
34704	7590	08/30/2006		
BACHMAN & LAPOINTE, P.C. 900 CHAPEL STREET SUITE 1201 NEW HAVEN, CT 06510			EXAMINER ZHENG, LOIS L	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

44

<b>Office Action Summary</b>	<b>Application No.</b> 10/601,247	<b>Applicant(s)</b> TANG ET AL.	
	<b>Examiner</b> Lois Zheng	<b>Art Unit</b> 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☒ This action is **FINAL**.
- 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3 and 5-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3 and 5-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.
  - 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Status of Claims*

1. No claim amendments are made in view of applicant's response filed 15 June 2006. Therefore, claims 3 and 5-12 remain under examination.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3 and 5-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bengston et al. US 6,692,583 B2 (Bengston) in view of Tomlinson.

The teachings of Bengston in view of Tomlinson are discussed in paragraph 4 of the previous Non-Final Office Action mailed 19 April 2006. The rejection grounds for the instant claims are maintained for the same reasons as stated in paragraph 4 of the previous Non-Final Office Action.

4. Claims 3 and 5-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushima et al. US 4,017,334 (Matsushima) in view of Oppen et al US 4,264,378 (Oppen), and further in view of Tomlinson.

The teachings of Matsushima in view of Oppen and Tomlinson are discussed in paragraph 5 of the previous Non-Final Office Action mailed 19 April 2006. The rejection grounds for the instant claims are maintained for the same reasons as stated in paragraph 5 of the previous Non-Final Office Action.

***Response to Arguments***

5. Applicant's arguments filed 15 June 2006 have been fully considered but they are not persuasive.

In the remarks, applicant argues that the combination of Bengston and Tomlinson would produce toxic carcinogenic nitrosamines and provides two published abstract as evidence.

Both applicant's remark and the technical abstract provided by the applicant disclose that carcinogenic nitrosamines are products of tertiary amines and nitrous acid. However, neither Bengston nor Tomlinson uses nitrous acid or nitrite, which would produce nitrous acid in an aqueous solution, in their coating solutions. Bengston and Tomlinson only teach the use of nitrate or nitric acid in their coating solutions. Therefore, the formation of carcinogenic nitrosamines should not have been a problem in the coating process of Bengston in view of Tomlinson. Therefore, applicant's argument is not persuasive.

Regarding applicant further arguments based on the specificity of Tomlinson's conversion coating solution, the examiner does not find applicant's arguments persuasive. Both Matsushima and Tomlinson's coating solutions comprises phosphate, fluoride and organophosphonic acid. Matsushima's coating solution further comprises titanium and Tomlinson's coating solution further comprises zirconium. Titanium and zirconium have very similar properties since they belong to the same metal group on the periodic table and are often used together or interchangeably in combination with fluoride to provide source of complex fluoride in a conversion coating solution. In

Art Unit: 1742

addition, Tomlinson teaches that this type of coating solution can be applied to both aluminum and magnesium surfaces. Therefore, one of ordinary skill in the art would have found it obvious that the coating solutions of Matsushima and Tomlinson are very similar and would have applied the coating solution of Matsushima in view of Oppen to a magnesium surface with expected success in view of the teachings of Tomlinson.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lois Zheng whose telephone number is (571) 272-1248. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LLZ

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